JC19 Rec'd PCT/PTO 15 JUN 2001

FORM PTO-1390 (REV 11-2000) — U S DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. § 371

ATTORNEY'S DOCKET NUMBER: 449122004500

U.S. APPLICATION NO. (If known, see 37 CFR 1.5): 09/868171 Not yet assigned

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/DE99/03802	01 December 1999	17 December 1998

TITLE OF INVENTION: **COMMUNICATION-ENABLED IMAGE RECORDING DEVICE**

APPLICANT(S) FOR DO/EO/US: **Joachim LAIER *et al.***

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
   a. ☒ is attached hereto (required only if not communicated by the International Bureau).
   b. ☐ has been communicated by the International Bureau.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application under PCT Article 19 (35 U.S.C. 371(c)(2)).
   a. ☒ is attached hereto.
   b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
   a. ☒ are attached hereto (required only if not communicated by the International Bureau).
   b. ☐ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☐ have not been made and will not be made.
8. ☒ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☒ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A FIRST preliminary amendment.
14. ☐ A SECOND or SUBSEQUENT preliminary amendment.
15. ☐ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information: 1. International Search Report 2. IPER 3. Information Data Sheet 4. Return receipt postcard.

CERTIFICATE OF HAND DELIVERY

I hereby certify that this correspondence is being hand filed with the United States Patent and Trademark Office in Washington, D.C. on June 15, 2001.

Marieta Luke

Marieta Luke

JC03 Rec'd PCT/PTC 15 JUN 2001

U.S. APPLICATION NO (if known, see 37 CFR 1.5) Not yet assigned 09/868171	INTERNATIONAL APPLICATION NO. PCT/DE99/03802	ATTORNEY'S DOCKET NUMBER: 449122004500

21. ☒ The following fees are submitted:

BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)):

Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO.....$1,000.00

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO.....$860.00

International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....$710.00

International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provision of PCT Article 33(1)-(4) $690.00

International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) $100.00

	CALCULATIONS PTO USE ONLY	
ENTER APPROPRIATE BASIC FEE AMOUNT =	$860.00	
Surcharge of **$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(e)).	$0	

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	11 - 20 =	0	x $18.00	$0	
Independent claims	2 - 3 =	0	x $80.00	$0	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ $270.00	$270.00	
TOTAL OF ABOVE CALCULATIONS =				$1130.00	
☐ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by ½.				$0	
SUBTOTAL =				$1130.00	
Processing fee of **$130.00** for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +				$0	
TOTAL NATIONAL FEE =				$1130.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **$40.00 per property** +				$40.00	
TOTAL FEES ENCLOSED =				$1170.00	
				Amount to be refunded:	**$**
				charged:	**$**

a. ☒ A check in the amount of $1,170.00 to cover the above fees is enclosed.

b. ☐ Please charge my **Deposit Account No. 03-1952** in the amount of $0 to cover the above fees.

c. ☒ The Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment to **Deposit Account No. 03-1952**.

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NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

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SIGNATURE

Kevin R. Spivak
Registration No. 43,148

09/868171

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2/PRTS

Description

Communications-enabled image recording device

The invention relates to a communications-enabled image recording device for still and/or moving images, in particular a digital camera having a semiconductor image recording sensor, in particular a CMOS/CCD chip or similar array, an image recording and image data transfer control unit for the image data and/or text or audio data transfer to an external data sink, such as e.g. a personal computer with image reproduction monitor or a mass storage device, and also having an operating display and having operating elements for setting operating modes, and also a method for operating such a communications-enabled image recording device.

From the prior art, digital cameras having integrated fixed or exchangeable memories, based on CCD sensors, have been known and commercially available since about the beginning of the 1990s. Such cameras or image recording devices have both an operating display and an indicating display which can be used to control the individual functions for image recording. Furthermore, the displays also make it possible to view the electronically stored recordings in order to check the image quality on site.

Via existing standard interfaces, using a suitable software, it is possible for the stored image data to be read out and for these contents to be accepted into the memory of a personal computer, in order to process the recording digitally or to output it via a connected printer or some other print medium.

Also known are so-called data communications terminals in compact telephone form, with the aid of which e.g. e-mails can

be received or sent. In conjunction with a notebook or a personal computer, such terminals in telephone form can be used as cableless modem. With rising transmission capacities of the mobile radio standards, it is possible also to transmit volumes of image data in real time in the course of the mobile communication.

The mobile phone with videophone adapter known under the product identifier Datascope of Kyocera K.K., Japan, can be used as a visual display telephone. With an LC display present in the Datascope mobile phone as viewfinder, it is possible to produce color digital recordings. The image discernible in the viewfinder is stored as a JPEG file in the flash memory of the mobile phone. The image file stored in the flash memory of the Datascope can then be sent as a binary file via a standard network using a special file transfer function, the so-called x-modem function. In the way, it is possible to receive data from the network using the videophone.

The prior art described above has the disadvantage, however, that an additional display device, for example the display of a computer system, is necessary for the representation of user and/or status information for the actual transmission operation. Only through these further technical means it is possible for the user, in the course of the communications and data transmission, to be able to assess the status of the individual operations or success or failure.

It is an object of the invention, therefore, to specify a communications-enabled image recording device for still and/or moving images, in particular a digital camera, and a method for operating such an image recording device which make it possible, in a particularly simple manner, to represent the required

status information and/or instructions in particular for the image data or

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some other data transfer, with the intention that this possibility shall be independent of the type of image recording device used or of the respective camera. Furthermore, the intention is that when constructing communications systems with the utilization of special digital image recording devices, the overall costs shall be kept low, without having to dispense with an intrinsically desired functionality and functional diversity.

The object of the invention is achieved by means of a communications-enabled image recording device for still and/or moving images, in particular a digital camera, as is defined in the valid patent claim 1. In respect of the method, in order to achieve the object, reference is made to the operation of a digital image recording device as per the definition according to patent claim 5.
In this case, the subclaims constitute at least expedient refinements and developments of the invention.

The basic concept of the invention consists in dispensing with an additional display unit or display by virtually allocating a dual function to the operating display that is present anyway in the image recording device. Thus, in a memory module, which may be part of the actual camera memory, images are stored which also contain texts and/or symbols which provide the user with information about the status of the image data communication or the communications system or which comprise instructions for operating the system.

This status information and/or instructions for the image data or some other data transfer can be accepted via an interface present per se into the memory module or image memory, but can also be acquired photographically in a simple manner.

During operation of the image recording device in the function data transfer, the image data transfer control unit then has the

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possibility of accessing the memory module in order to enable the desired representation of the status information and/or of the instructions on the display.

Accordingly, in concrete terms, provision is made of a memory module for the representation of the above-described status information and/or instruction for the image data transfer but also for the transfer of accompanying audio data on the operating display, the memory module being connected to an interface. Via this interface, externally offered digit and/or letter sequences and/or graphics or similar representations for the identification of the respective status or for the operating instruction can then be accepted into the memory module.
The abovementioned image data transfer control unit then has access to the memory module and makes it possible to display or enable the desired representation on the operating display.

In one embodiment of the invention, the memory module is a separately addressable area of the central camera memory. The operating display of the camera, for example a liquid crystal (LC) display, can be driven by a driver, in which case the driver fetches data from the memory module according to specification by the control unit.

The image data transfer control unit can be connected to a transmitting unit, in which case this transmitting unit may also be an integral part of the camera. The transmitting unit has a radio transmitting assembly with antenna for establishing a wire-free connection via a GSM, UMTS, DECT or similar standard telecommunications network and/or a data transfer interface for wire-based, bit-oriented transmission via an ISDN or similar network.

The operating display of the camera or the display driver can be driven externally, which means that it is possible,

independently of the respective camera type, by means of the remote controllability, to call up status information and/or instructions for the data transfer which are to be correspondingly represented on the display.

In the same way as the transmitting unit, the image data transfer control unit may also be an integral part of the camera.

In respect of the method, in order to operate the image recording device for displaying status information and/or instructions on the operating display for or during the data transfer, in particular image data transfer, a digit and/or letter sequence and/or graphic or a pictorial representation is read from the camera memory, the selection of the representations being automatically initiated by the image data transfer control unit in accordance with the respective commands and/or operations.

The digit and/or letter sequences, graphics or other pictorial representations which are stored in the memory can be erased by means of the above-described external access, but can also be changed and thus updated.

In one refinement of the invention, it is possible that when the image recording device, in particular a camera, is connected to a memory for addressing data sinks or has such a memory, the status information also comprises, for example, a photograph or a graphical representation which specifies the user or the data sink. It is thus conceivable for a telephone number memory to contain the photograph of the subscriber as an alternative or in addition to the names or abbreviated names, said photograph being presented in a selection memory on the camera display, thereby

simplifying the handling of the data communication between data source and data sink.

The invention will be explained in more detail below using an exemplary embodiment and also with the aid of figures.

In this case:

Figure 1 shows a basic illustration of an image data communications system, and

Figure 2 shows a block diagram of the image recording device with the possibility of displaying status information and/or instructions for the data transfer with recourse to corresponding graphical representations or the like from a memory module, said representations having been introduced or made available beforehand.

The image data communications system shown in figure 1 is based on an image data source and at least one image data sink. The image data source comprises the image recording device 1, a control unit 2 and a transmitting unit 3. The data sink comprises receiving unit 4 and also image reproduction unit 5.

The image data transmission can be effected, with the utilization of the transmitting unit 3 and receiving unit 4, either in a wire-free manner, e.g. via the GSM mobile radio network, or else in a wire-based manner, e.g. via the telephone network according to the ISDN standard.

Control and monitoring of the image transmission and reception process from the data source to the data sink usually necessitate components for optical reproduction of the status information and of operating instructions both at the transmitter end and at the receiver end. For the representation of transmitted image data and

for the indication of corresponding status information, previous systems use the monitor of a computer system operating as control unit 2.

According to the exemplary embodiment, the display present in image recording devices, in particular digital still image cameras, is not only utilized for image reproduction but is also used for outputting instructions for operating the camera and for the representation of status information. By virtue of the fact that it is possible to have recourse to the display present in the image recording device, it is possible to dispense with an additional display unit or a monitor in connection with the control unit 2.

According to figure 2, which shows a block diagram of a digital camera, the latter has an e.g. LC or TFT display 6. The display, which usually serves for reproducing recordings and includes the possibility of representation of a menu, interacts with a display driver 7.

A memory module 8 is able to accept, via an interface 9, externally offered digit and/or letter sequences and/or graphics or similar representations which enable identification of the respective status or represent an operating instruction.

The image data transfer control unit 10 firstly has access to the interface 9 and is able to activate and enable corresponding address ranges in the memory module 8. Through simultaneous activation of the display driver 7, the specific representations held in the memory module 8 are represented on the display 6, with the result that e.g. the information "image data receiver is selected" or "image data successfully transmitted, you may switch the device off" becomes visible.

For reading in such representation data records, it is possible, as can be seen from the block diagram according to figure 2, for the image data transfer

control unit 10 to enable the data acceptance via the interface 9 toward the

memory module 8 and to ensure that this information is written to correspondingly provided memory areas. In a preferred exemplary embodiment, the memory module 8 is a reserved addressing area of the actual camera memory, with the result that additional hardware requirements can be reduced to a minimum.

It becomes clear from the exemplary embodiment that, with the solution described above, it is not only possible to dispense with additional display units for a control unit 2, rather it is possible to integrate such a control unit including transmitting unit 3 into the camera, thereby increasing the functionality of the latter. The outputting and the content of status messages on the camera display are, moreover, totally independent of the camera used, provided that the possibility is afforded there of correspondingly remotely controlling the camera display, i.e. accessing the display driver 7.

Siemens AG 1998

Patent claims

1. A communications-enabled image recording device for still and/or moving images, in particular a digital camera having a semiconductor image recording sensor, in particular a CMOS/CCD chip or similar array, an image recording and image data transfer control unit for the image data and/or text or audio data transfer to an external data sink, such as e.g. a personal computer with image reproduction monitor or a mass storage device, and also having an operating display and having operating elements for setting operating modes, characterized in that provision is made of a memory module (8) for holding and indirectly representing status information and/or instructions for the image data transfer on the operating display (6), the memory module (8) being connected to an interface (9) in order to accept into the memory module (8) externally offered digit and/or letter sequences and/or graphics or similar representations for identifying the respective status, and, furthermore, the image data transfer control unit (10) has access at least to the memory module (8) in order to display the desired representation on the operating display (6).

2. The communications-enabled image recording device as claimed in claim 1, characterized in that the memory module (8) is a separately addressable area of the central camera memory, or in that the representations are provided with a particular identification symbol in order to define them as status information.

3. The communications-enabled image recording device as claimed in claim 1 or 2, characterized in that the operating display is a camera display which can be driven by a display driver (7), in which case, via the

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driver (7), data can be fetched from the memory module (8) according to specification by the control unit (10).

4. The communications-enabled image recording device as claimed in one of the preceding claims, characterized in that the image data transfer control unit (10) is connected to a transmitting unit (3), and in that the transmitting unit (3) has a radio transmitting assembly with antenna for establishing a wire-free connection via a GSM, UMTS, DECT or similar standard telecommunications network and/or a data transfer interface for wire-based, bit-oriented transmission via an ISDN or similar network.

5. The communications-enabled image recording device as claimed in one of the preceding claims, characterized in that the operating display (6) or the display driver (7) can be externally driven or activated.

6. The communications-enabled image recording device as claimed in one of the preceding claims, characterized in that the image data transfer control unit (10) is an integral part of the image recording device or camera.

7. A method for operating a communications-enabled image recording device for still and/or moving images, in particular a digital camera, which has a semiconductor image recording sensor, in particular CMOS/CCD chip or similar array, an

image recording and image data transfer control unit for the image or other data transfer to an external data sink, such as e.g. a personal computer with image reproduction monitor, or a mass storage device, the integrated image recording and image data transfer control unit being connected to an operating display and also operating elements or setting operating modes,

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characterized
in that, in order to display status information and/or instructions on the operating display for or during the data transfer from the data source to the data sink, digit and/or letter sequences and/or graphics or similar representations are read from an additional memory module, the selection of the representations being automatically initiated by the image data transfer control unit in accordance with the respective commands and/or operations.

8. The method as claimed in claim 7,
characterized
in that the digit and/or letter sequences and/or graphics or similar representations which are stored in the memory module can be erased and/or changed and thereby updated by external access after positive checking of authorization.

9. The method as claimed in claim 7 or 8,
characterized
in that the memory module is formed by a separately addressable area of the central camera memory.

Abstract

Communications-enabled image recording device

The invention relates to a communications-enabled image recording device having a memory module for holding status information and/or instructions for the data transfer on the operating display, the memory module being connected to an interface in order to accept into the memory module externally offered digit and/or letter sequences and/or graphics or similar representations for identifying the respective status. The image data transfer control unit has access to the memory module in order to display the desired representation on the operating display.

FIG. 2

Declaration and Power of Attorney For Patent Application
Erklärung Für Patentanmeldungen Mit Vollmacht
German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit an Eides Statt:

As a below named inventor, I hereby declare that:

dass mein Wohnsitz, meine Postanschrift, und meine Staatsangehörigkeit den im Nachstehenden nach meinem Namen aufgeführten Angaben entsprechen,

My residence, post office address and citizenship are as stated below next to my name,

dass ich, nach bestem Wissen der ursprüngliche, erste und alleinige Erfinder (falls nachstehend nur ein Name angegeben ist) oder ein ursprünglicher, erster und Miterfinder (falls nachstehend mehrere Namen aufgeführt sind) des Gegenstandes bin, für den dieser Antrag gestellt wird und für den ein Patent beantragt wird für die Erfindung mit dem Titel:

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Kommunikationsfaehige Bildaufnahme-einrichtung

Communication-enabled image recording device

deren Beschreibung

the specification of which

(zutreffendes ankreuzen)
☐ hier beigefügt ist.
☒ am 01.12.1999 als
PCT internationale Anmeldung
PCT Anmeldungsnummer PCT/DE99/03802
eingereicht wurde und am _____
abgeändert wurde (falls tatsächlich abgeändert).

(check one)
☐ is attached hereto.
☒ was filed on 01.12.1999 as
PCT international application
PCT Application No. PCT/DE99/03802
and was amended on _____
(if applicable)

Ich bestätige hiermit, dass ich den Inhalt der obigen Patentanmeldung einschliesslich der Ansprüche durchgesehen und verstanden habe, die eventuell durch einen Zusatzantrag wie oben erwähnt abgeändert wurde.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended by any amendment referred to above.

Ich erkenne meine Pflicht zur Offenbarung irgendwelcher Informationen, die für die Prüfung der vorliegenden Anmeldung in Einklang mit Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) von Wichtigkeit sind, an.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

Ich beanspruche hiermit ausländische Prioritätsvorteile gemäss Abschnitt 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 119 aller unten angegebenen Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde, und habe auch alle Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde nachstehend gekennzeichnet, die ein Anmeldedatum haben, das vor dem Anmeldedatum der Anmeldung liegt, für die Priorität beansprucht wird.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

IDNR: 2590 / V: 99-1.00 / B:Val

German Language Declaration

Prior foreign appplications
Priorität beansprucht

			Priority Claimed	
19858389.3	DE	17.12.1998	☒	☐
(Number)	(Country)	(Day Month Year Filed)	Yes	No
(Nummer)	(Land)	(Tag Monat Jahr eingereicht)	Ja	Nein
			☐	☐
(Number)	(Country)	(Day Month Year Filed)	Yes	No
(Nummer)	(Land)	(Tag Monat Jahr eingereicht)	Ja	Nein
			☐	☐
(Number)	(Country)	(Day Month Year Filed)	Yes	No
(Nummer)	(Land)	(Tag Monat Jahr eingereicht)	Ja	Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozeßordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35. United States Code. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occured between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/DE99/03802	01.12.1999		
(Application Serial No.) (Anmeldeseriennummer)	(Filing Date D, M, Y) (Anmeldedatum T, M, J)	(Status) (patentiert, anhängig, aufgegeben)	(Status) (patented, pending, abandoned)
(Application Serial No.) (Anmeldeseriennummer)	(Filing Date D,M,Y) (Anmeldedatum T, M; J)	(Status) (patentiert, anhängig, aufgeben)	(Status) (patented, pending, abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgebe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozessordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden koennen, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentes gefährden können.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

German Language Declaration

VERTRETUNGSVOLLMACHT: Als benannter Erfinder beauftrage ich hiermit den nachstehend benannten Patentanwalt (oder die nachstehend benannten Patentanwälte) und/oder Patent-Agenten mit der Verfolgung der vorliegenden Patentanmeldung sowie mit der Abwicklung aller damit verbundenen Geschäfte vor dem Patent- und Warenzeichenamt: *(Name und Registrationsnummer anführen)*

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

And I hereby appoint

Customer No. 25227

Telefongespräche bitte richten an: *(Name und Telefonnummer)*

Direct Telephone Calls to: *(name and telephone number)*

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2000 PENNSYLVANIA AVE, NW 20006-1888 WASHINGTON, DC
Telephone: +1 202 887 1500 and Facsimile +1 202 887 0763
or
Customer No. 25227

Voller Name des einzigen oder ursprünglichen Erfinders: JOACHIM LAIER	Full name of sole or first inventor: JOACHIM LAIER
Unterschrift des Erfinders / Datum: 27.03.07	Inventor's signature / Date
Wohnsitz: MUENCHEN, DEUTSCHLAND DE X	Residence: MUENCHEN, GERMANY
Staatsangehörigkeit: DE	Citizenship: DE
Postanschrift: SCHLIERSEESTR. 61 81539 MUENCHEN	Post Office Addess: SCHLIERSEESTR. 61 81539 MUENCHEN
Voller Name des zweiten Miterfinders (falls zutreffend): Dr. HEINZ MATTES	Full name of second joint inventor, if any: Dr. HEINZ MATTES
Unterschrift des Erfinders / Datum: 27.3.2007	Second Inventor's signature / Date
Wohnsitz: MUENCHEN, DEUTSCHLAND DE X	Residence: MUENCHEN, GERMANY
Staatsangehorigkeit: DE	Citizenship: DE
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(Supply similar information and signature for third and subsequent joint inventors).

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